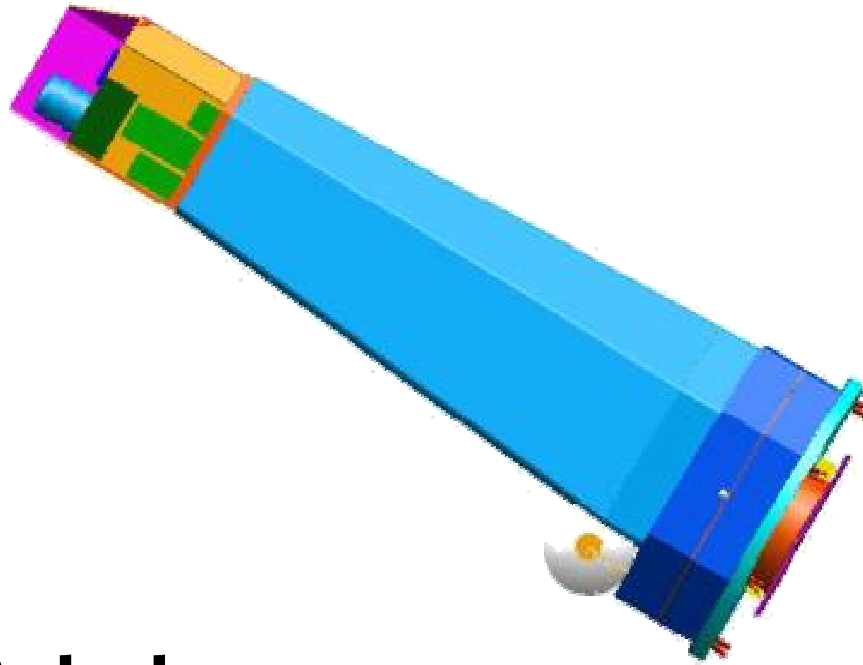




REFERENCE MISSION ARCHITECTURE AND DESIGN



Govind Gadwal



Mission Architecture and Design

- **Mission Documents for procurement needed in 2003 are under preparation.**
 - **Constellation-X Top Level Requirements**
 - There is a draft document dated July 20, 2000 on the web
 - This document will be rewritten into Level 1 and Level 2 documents.
 - **Constellation-X Reference Mission Architecture and Design**
 - There is a document base lined on Feb. 25, 2000 known as “Reference Mission Description Document” on the web
 - This document will be revised with updates from the latest configuration.
 - **Constellation-X Operations Concept**
 - A totally new document planned for preparation.
 - The document covers early operations, routine operations and Design Reference Mission etc..
- **Need timely inputs to prepare document by August 30.**

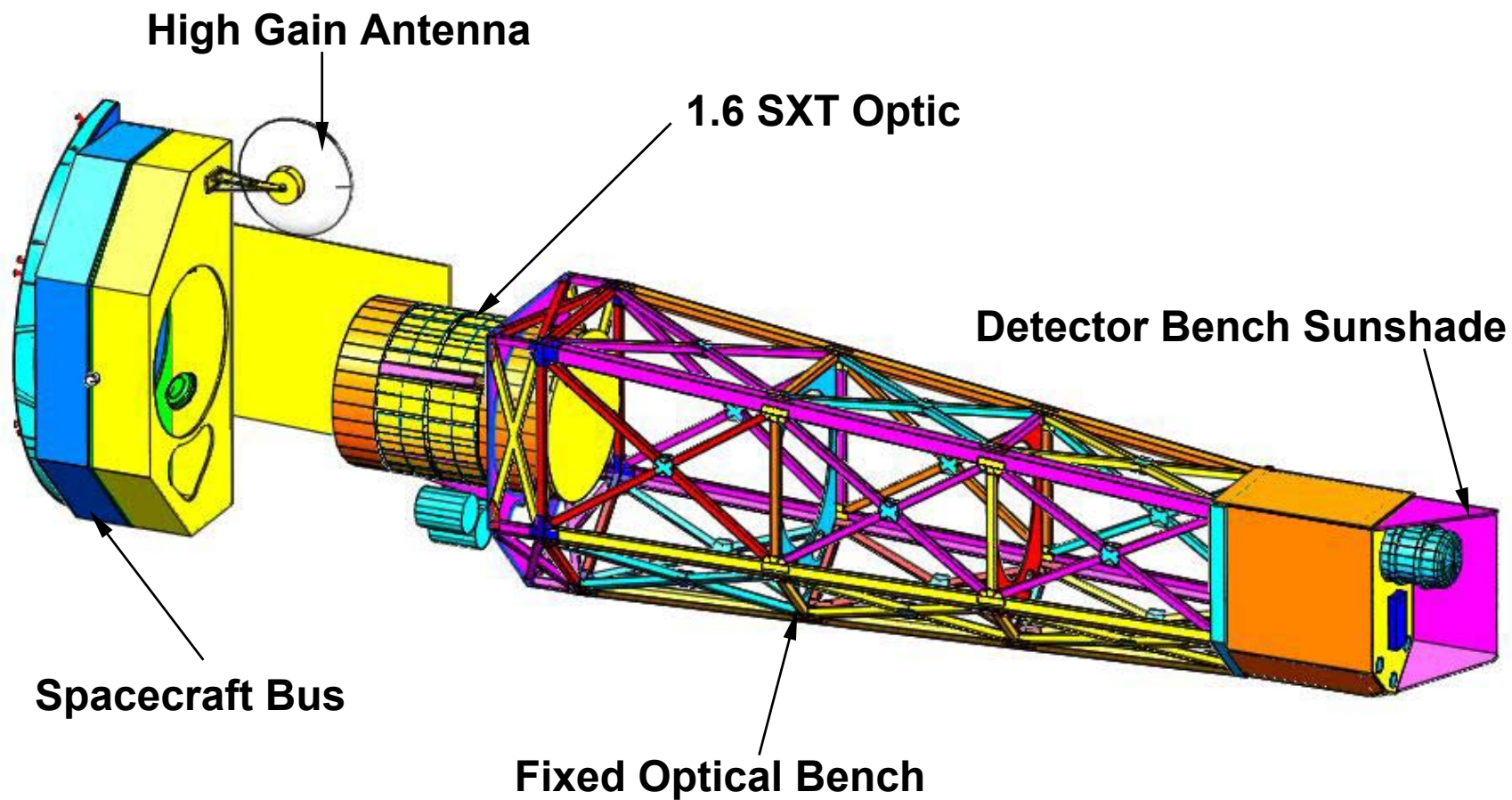


Reference Architecture and Design Updates

- **Changed Extendible Optical Bench to Fixed Optical Bench**
 - **Increases reliability**
 - **Reduces mass**
- **Incorporated Segmented SXT optics**
- **Updated configurations to include impacts due to new top level requirements**
 - **Imposed new timing requirements**
 - **Needed 100 microseconds timing accuracy for science.**
 - **Imposed new bright source requirements**
 - **Increased mission requirements to 40000 counts per second maximum**
 - **Imposed new pixel requirements to 1000 counts per second maximum**
- **Update advances in Instruments, Structures and Subsystems**

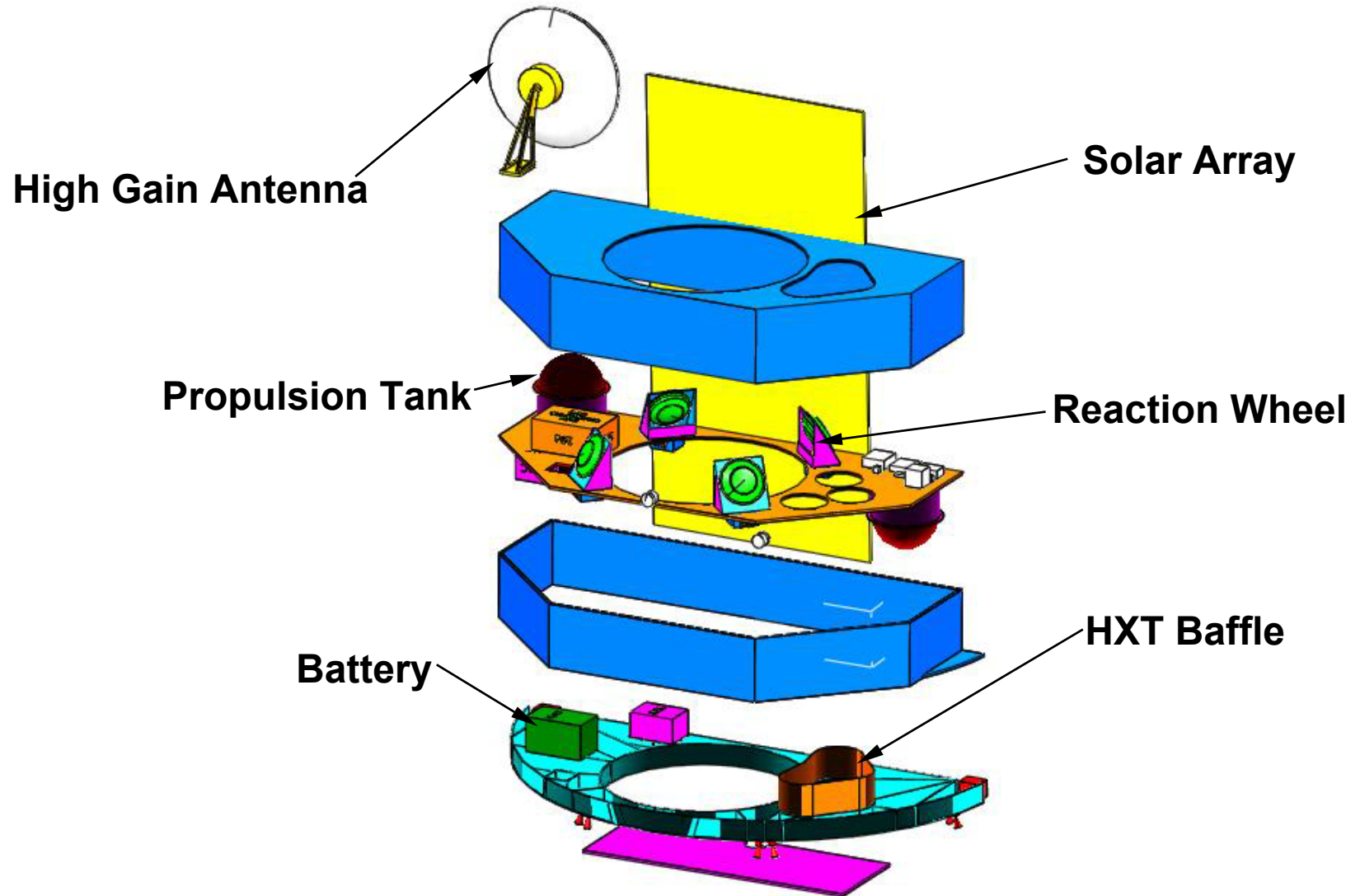


FIXED BENCH CONFIGURATION

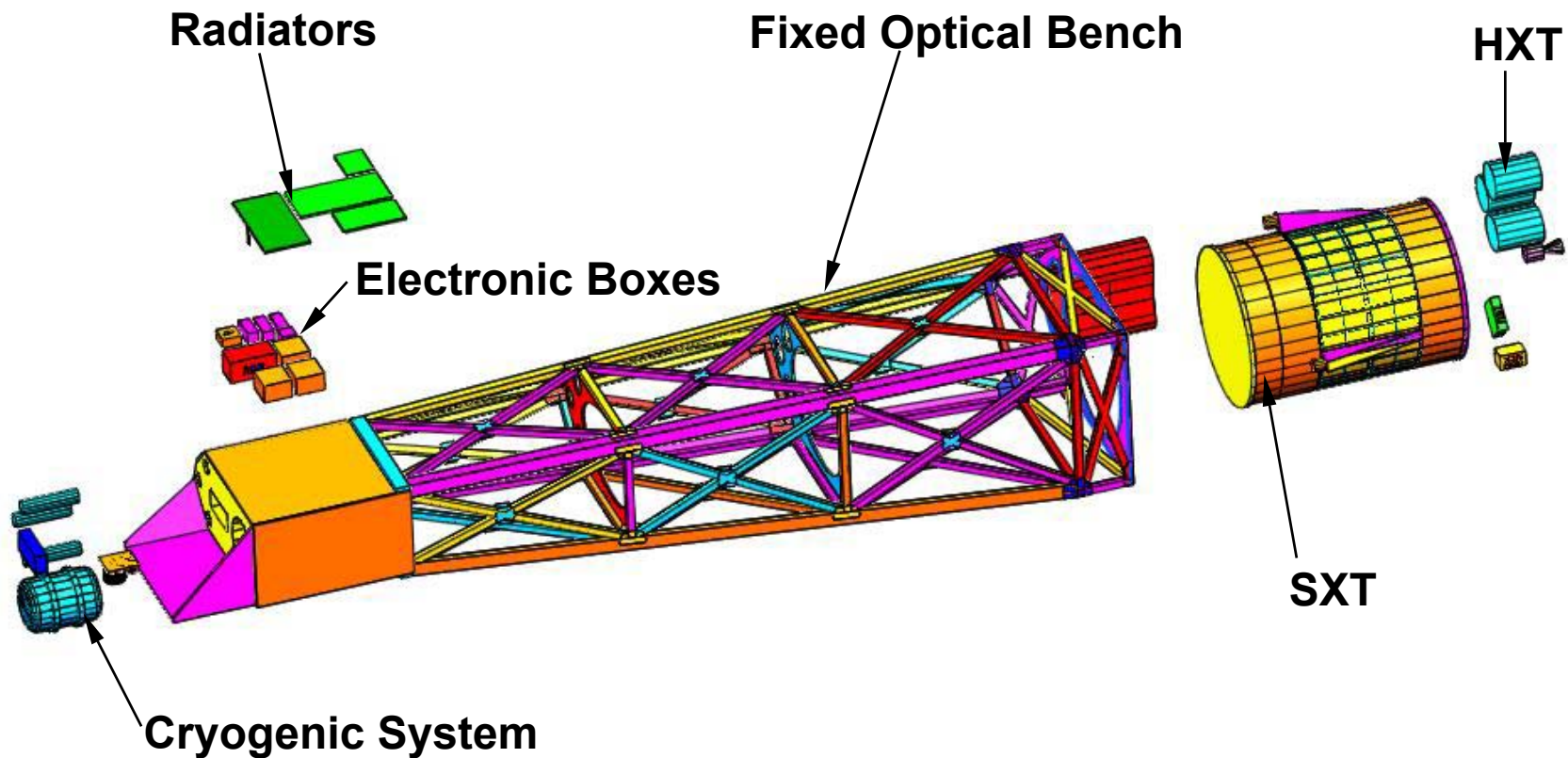




SPACECRAFT MODULE



INSTRUMENT MODULE





Architecture and Design Document Plans

- | | |
|----------------------|-----------|
| ▪ Kickoff Meeting | Feb. 27 |
| ▪ Subsystem Inputs | April 26 |
| ▪ Instrument Input#1 | May 10 |
| ▪ System Inputs | May 31 |
| ▪ Subsystem Comments | June 14 |
| ▪ Instrument Input#2 | June 28 |
| ▪ Draft Document | July 12 |
| ▪ Project Comments | August 2 |
| ▪ Baseline Document | August 30 |